Obtaining code from the LPEATE

To obtain code you need to have an account on npp1 and permission to check out code from the LPEATE subversion repositories. If you do not have these permissions and need them, please contact the Land PEATE Task Lead, Carol Davidson, at carol.davidson@sigmaspace.com.

Overview of LPEATE Repositories:

The Land Peate currently has two subversion repositories. They are NPP and NPP2. PGEs from the Science version of the IDPS code and the IDPS OPS versions based on IDPS OPS code 1.5.0.25.2 and earlier as well as some SCIENCE PGEs can be found under the NPP repository. PGEs with code from IDPS OPS code 1.5.0.37.3 and higher can be found under the NPP2 repository.

The NPP2 repository has many layers. On the main trunk is the code based on IDPS v1.5.00.48 that compiles and runs under CentOS using gfortran. NPP2 also has a "branches" area. NPP2 "branches" contains branches named "v48_mdv" and "Mx4". The "v48_mdv" branch contains the IDPS based codes and LPEATE build and library files based on IDPS v1.5.00.48 meant to compile and execute under Linux Mandriva using PGI Fortran. The "Mx4" branch contains the LPEATE build and library files and IDPS source code to work with IDPS v1.5.04.00, also known as Mx4.

Determining What Tagged Code to Pull:

The simplest way to see what tagged versions of code are available is to do an "ls" through subversion. To do this, first log onto npp1. Then do one of the following:

```
svn ls svn+ssh://svnno/NPP/OPS/tags
svn ls svn+ssh://svnno/NPP/SCIENCE/tags
svn ls svn+ssh://svnno/NPP2/tags
```

The codes are listed by PGE and/or Library name. You will find a table at the end of this file that lists the PGEs by their number along with a description of it to aid in locating the correct PGE.

You will find that the versions of OPS PGEs will all have a leading character of "P" followed by the version number that will consist of either three or four places. If the PGE Version contains Px.x.x, it reflects that it is an integration of the original IDPS OPS code. If the PGE Version contains Px.x.x.x, it reflects that it is a LPEATE Adjusted variation of the IDPS OPS code. For example, the tagged OPS Surface Reflectance of CM_PGE311_VP1.5.3 is the code as it came from IDPS. The tagged CM_PGE311_VP1.5.3.1, this is a LPEATE Adjusted variation of the OPS PGE311/Surface Reflectance vP1.5.3.

PGE and Library Versions with the two leading digits of 1.6, like CM_PGE311_VP1.6.0 and CM_PGE311_VP1.6.0.1, are CentOS/gfortran variations. PGE and Library Versions with the two leading digits of 2.0, like CM_PGE356_VP2.0.0 or

CM_PGE356_VP2.0.0.1, use the IDPS OPS code build 1.5.04.00.

Obtaining/Working with a Tagged PGE:

Once you have determined which PGEVersion you want and which repository it is located in, you are ready to retrieve the code. **NOTE**: when you attempt to retrieve the code you may be prompted for your password. If so, the password is the same password you use to gain access to npp1. To retrieve the code:

1. Log onto your account on npp1
2. In your home directory submit one of the following commands:

   For OPS PGEs in the NPP repository:

   svn export svn+ssh://svnno/NPP/OPS/tags/<tagged name>

   For SCIENCE PGEs in the NPP repository:

   svn export svn+ssh://svnno/NPP/SCIENCE/tags/<tagged name>

   For PGEs in the NPP2 repository:

   svn export svn+ssh://svnno/NPP2/tags/<tagged name>

   While the download is occurring, a string of messages will go across your screen. Once done you will find a directory in your home area that matches the <tagged name> used in your above command. This new subdirectory will have several subdirectories within it.

   If the PGE you retrieved is an OPS version, you will find your PGE in: <tagged name>/OPS/<PGExxx> where xxx is the number of the PGE you retrieved.

   If the PGE you retrieved is LPEATE Adjusted, you will find your PGE in: <tagged name>/OPS/branches/LP_Adj/OPS/<PGExxx> where xxx is the number of the PGE you retrieved.

   If the PGE you retrieved is a SCIENCE version, you will find your PGE in: <tagged name>/SCIENCE/<PGExxx> where xxx is the number of the PGE you retrieved.

3. Under the "PGExxx" directory you will find a "COMB" subdirectory. There should be a README.txt within this directory that will provide further instructions for compiling that particular PGE. Note that sometimes the "README.txt" is missing for SCIENCE versions, but immediately under the "PGExxx" directory there are compile and runtime scripts that can be examined for guidance on compiling and executing the code.

If working with PGEs/Code from under the NPP repository, see the LPEATE_Library_Setup.doc for additional instructions on preparing the libraries and your environment.

If working with PGEs/Code from under the NPP2 repository, see the documents: OPS Code Checklist and LPEATE_Library_Setup_NPP2_0811.doc for additional information on libraries as well as instructions on preparing the libraries and your environment.

PGE Descriptions:

PGE	PGE Name
300	Aggregator, granular inputs
301	Verified RDR
302	SDR-GEO
303	CloudMask
304	Aerosol Optical Thickness -- Old, NPP repository only. Replaced by PGE383 in newer versions.
306	Cloud Optical Properties
307	Snow Cover
308	Ice Quality
309	Ice Conentration
310	Sea Ice Characterization/Ice Age
311	Surface Reflectance
312	L2G Geolocation generator
313	Gridded Daily Surface Reflectance
314	Gridded Daily Snow
316	L2 LST
317	17-Day Gridded NbarNdvi
318	Monthly Gridded SR/BT/VI
319	17-Day Gridded BRDF/LALB
320	Monthly Gridded Nbar Ndvi
321	17-Day Gridded Rolling Nbar Ndvi
330	ActiveFires
342	L2G Pointer
343	L2G Fire, Surf Refl, LST, VI
344	L2G Snow Cover
345	L2G Sea Ice
346	L3 Daily Gridded LST
347	L3 Daily Gridded Snow Cover
348	L3 Daily Gridded Sea Ice

349	Surface Type
350	NCEP Granulation
353	Grid2Granulation 750m
355	Surface Albedo
356	Vegetation Index
361	L3 8-Day Gridded Fire
362	L3 8-Day Gridded Surface Reflectance
363	L3 16-Day Gridded VI
364	L3 16-Day Gridded BRDF/Albedo
373	Ice Surface Temperature
374	Nearest Neighbor, for mapping Tiles to Imagery Resolution Geolocation
381	Aerosol Particle Size Parameter-- Old, NPP repository only. Replaced by PGE383 in newer versions.
383	L2 Aerosol EDRs/IPs
385	Suspended Matter-- Old, NPP repository only. Replaced by PGE383 in newer versions.
390	Aeronet Subsetter
392	CERES subsetter
393	Control Point
399	SDRGen Proxy Data Generator

Originally developed by C. Carter of LDOPE, July 2009
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